

## Waldenström's Macroglobulinemia

Waldenström's macroglobulinemia is a rare, chronic cancer that is classified as a low-grade, or indolent, type of lymphoma. It affects plasma cells, which develop from white blood cells called B lymphocytes, or B cells.

B cells form in the lymph nodes and the bone marrow, the soft, spongy tissue inside bones. They are an important part of the body's immune (defense) system. Some B cells become plasma cells, which make, store, and release antibodies. Antibodies help the body fight viruses, bacteria, and other foreign substances.

In Waldenström's macroglobulinemia, abnormal plasma cells multiply out of control. They invade the bone marrow, lymph nodes, and spleen and produce excessive amounts of an antibody called IgM. Excess IgM in the blood causes hyperviscosity (thickening) of the blood.

Waldenström's macroglobulinemia usually occurs in people over age 65, but can occur in younger people. A review of cancer registries in the United States found that the disease is more common among men than women and among whites than blacks.

Some patients do not experience symptoms. Others may have enlarged lymph nodes or spleen, and may experience fatigue, headaches, weight loss, a tendency to bleed easily, visual problems, confusion, dizziness, and loss of coordination. These symptoms are often due to

the thickening of the blood. In extreme cases, the increased concentration of IgM in the blood can lead to heart failure.

The diagnosis of Waldenström's macroglobulinemia generally depends on the results of blood and urine tests and a bone marrow biopsy. During this test, a needle is inserted into a bone and a small amount of bone marrow is withdrawn and examined under the microscope.

The initial treatment of Waldenström's macroglobulinemia is determined mainly by the thickness of the patient's blood. Patients with hyperviscosity usually receive chemotherapy (anticancer drugs). A type of treatment called plasmapheresis may be performed to relieve symptoms such as excessive bleeding and dizziness. In this procedure, blood is removed from the patient and circulated through a machine that separates the plasma (which contains the antibody IgM) from the other parts of the blood (red blood cells, white blood cells, and platelets). The red and white blood cells and platelets are returned to the patient, along with a plasma substitute. Interferon alpha, a biological therapy (a type of treatment that stimulates the immune system to fight cancer), can also help to relieve symptoms. For long-term control of the disease, doctors generally combine plasmapheresis with chemotherapy.

Researchers continue to look for more effective ways to treat Waldenström's macroglobulinemia by conducting clinical trials (research studies) of new anticancer drugs, combinations of drugs, and new biological therapies. Information about ongoing clinical trials is available from the Cancer Information Service (see below) or from the National Cancer Institute's cancerTrials™ Web site at <http://cancertrials.nci.nih.gov> on the Internet.

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### **Sources of National Cancer Institute Information**

#### **Cancer Information Service**

Toll-free: 1-800-4-CANCER (1-800-422-6237)

TTY (for deaf and hard of hearing callers): 1-800-332-8615

#### **NCI Online**

##### ***Internet***

Use <http://www.cancer.gov> to reach NCI's Web site.

##### ***CancerMail Service***

To obtain a contents list, send e-mail to [cancermail@icicc.nci.nih.gov](mailto:cancermail@icicc.nci.nih.gov) with the word "help" in the body of the message.

#### **CancerFax® fax on demand service**

Dial 301-402-5874 and listen to recorded instructions.

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